

ABSTRACT

5 A difference information receiver, a difference information transmitter  
and a difference information synchronizer which cooperate in a system or  
device to update data in the device with data received from other systems,  
or provide data for other systems to use in updating themselves are  
disclosed. A difference receiver in a device having at least one  
application data destination having a format includes a difference engine  
receiving difference information associated with a change to said at least  
one application data destination; and an application interface, applying said  
10 difference information to said at least one data destination. A method for  
updating data files in a system is also disclosed. The method may include  
the steps of: receiving difference information for a subset of said data files;  
and applying said difference information to said subset of said data files.  
In particular said step of receiving may comprise: receiving a change log  
15 detailing changes to data files on another system; and applying said  
changes to a data store containing data identical to said data files to  
generate changed data. A difference transmitter comprises an application  
in a system having a data source in a source format. The application may  
include an application interface, extracting data from said data source; and  
20 a difference engine receiving said data and outputting difference information  
associated with changes to said data source. A method for updating a data  
source in a system is also disclosed. The method may include the steps of  
extracting difference information from at least a subset of said data source;  
and outputting difference information for at least the subset of said data  
25 source. The step of extracting may comprise determining whether changes  
have been made to the subset of data source in the system; and  
generating a change log detailing changes to the subset of data source on  
another system.

A difference synchronizer includes an extraction routine for extracting

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a first set of difference information resulting from changes to the data files; a differencing transmitter for transmitting said first set of difference information to an output; a differencing receiver for receiving a second set of difference information from an input; and a reconstruction routine for applying the second set of difference information to the data files. In a particular embodiment, the invention comprises a device engine including an application object; an application object store; and a delta module.

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